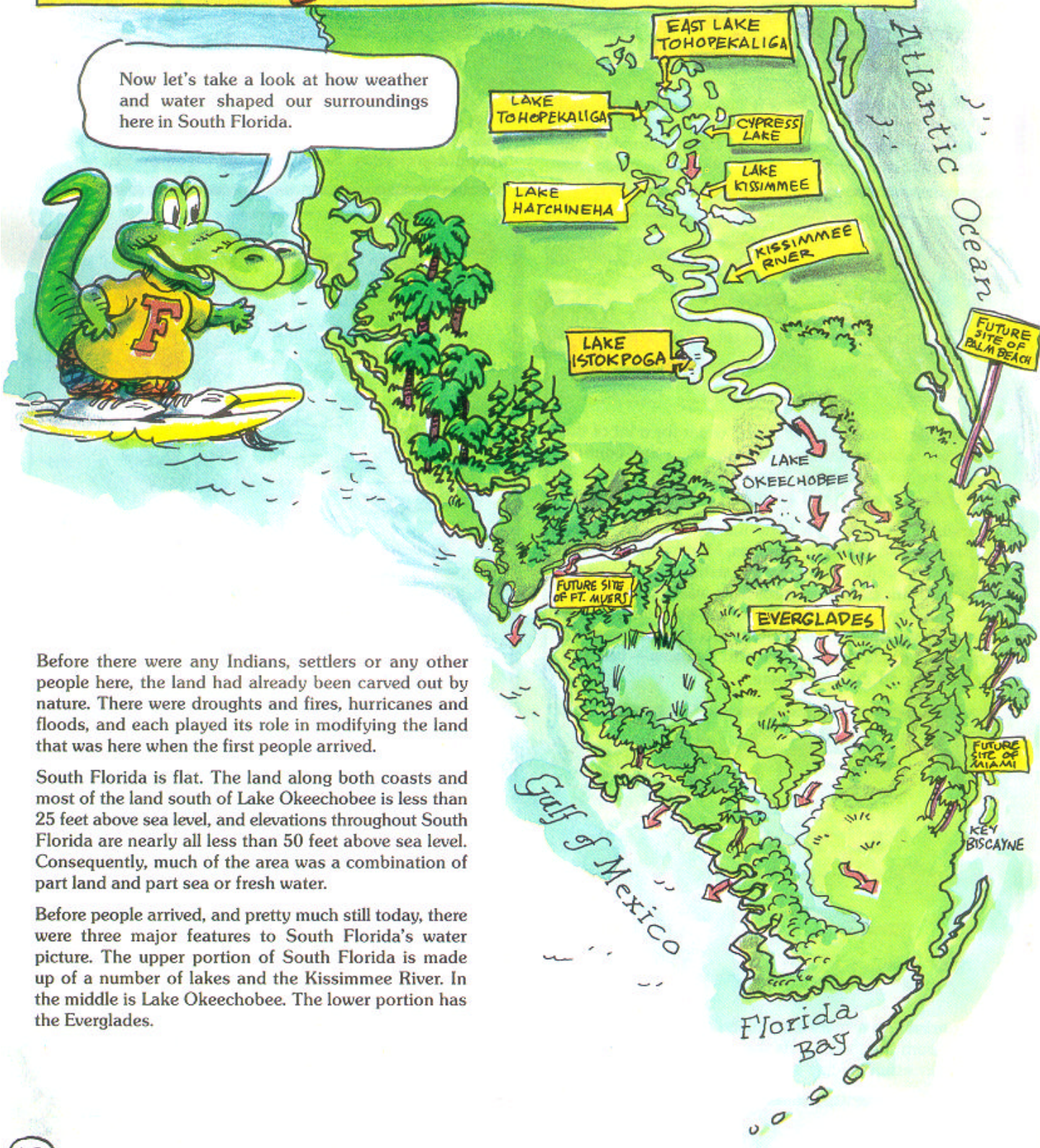
The Natural Water System of South Florida



Before there were any Indians, settlers or any other people here, the land had already been carved out by nature. There were droughts and fires, hurricanes and floods, and each played its role in modifying the land that was here when the first people arrived.

South Florida is flat. The land along both coasts and most of the land south of Lake Okeechobee is less than 25 feet above sea level, and elevations throughout South Florida are nearly all less than 50 feet above sea level. Consequently, much of the area was a combination of part land and part sea or fresh water.

Before people arrived, and pretty much still today, there were three major features to South Florida's water picture. The upper portion of South Florida is made up of a number of lakes and the Kissimmee River. In the middle is Lake Okeechobee. The lower portion has the Everglades.

Kissimmee River System

There were many lakes in this area of what is now Highlands, Orange, Osceola and Polk counties. Some of the bigger lakes include Lake Tohopekaliga and East Lake Tohopekaliga on the north, Cypress Lake, Lake Hatchineha and Lake Kissimmee. Some of the water from these lakes eventually made its way into the Kissimmee River.

The river wandered back and forth across the Kissimmee Valley on its way from Lake Kissimmee to Lake Okeechobee. Although a straight-line route between the two lakes is about 52 miles, the Kissimmee River, with all its meanders and oxbows, took almost 98 miles to make the trip.

The river wound through very extensive marshes for a good portion of its route down its one-mile-wide floodplain. During the rainy season, the flooded marshes teemed with large numbers of fish and smaller water creatures. As water levels fell during the dry season, these aquatic organisms were concentrated into smaller areas. Larger fish, birds and alligators preyed heavily upon the concentrated masses of aquatic animals.

Lake Okeechobee

Okeechobee was and is one big lake. Created without any help from human dam builders, Lake Okeechobee is the second largest natural freshwater lake wholly within the United States (Lake Michigan is the largest). Because the lake is shallow (average depth is 9 feet) and spread out over an area of 730 square miles, a lot of water escapes from the surface straight into the air through evaporation.

In its natural state, Lake Okeechobee had no barriers or controllable outlets to hold back the flows caused by heavy rainfall. So, water would sometimes overflow its southern rim, inundating the flat land with shallow, slow-moving sheets of water.

The Everglades

Even bigger than Lake Okeechobee was the original Everglades – the vast expanse of sawgrass, tree islands, sloughs, marshes and cypress forests that spread across most of the southeast part of what is now Florida.

When there were only animals around, we thought of the Everglades as a "river of grass." Water gradually flowed down, mostly from rains, in one wide, continuous blanket through the plants growing out of the low-lying lands. The native vegetation served as a filter, cleansing the water of any harmful impurities. Along the way, some of the water was taken in by the roots of the plants and released into the air through the leaves. Some evaporated. And some reached Florida Bay and the Ten Thousand Islands to the south.

During dry spells, lightning storms would touch off vast fires in the marshes. Still, the integrity of the eco-system remained intact.

The plants and animals of the Everglades thrived on the natural flood-and-drought cycles of South Florida's subtropical climate.